5

## Claims:

1. A method of describing a document link for linking a first document of a link source and a second document of a linking destination, the method comprising a step of:

describing an abstract link in the first document of the link source, the abstract link describing a link establishing condition for determining a document link between the first document of the link source and the second document of the linking destination on a basis of retrieval of document information of the first document of the link source and the second document of the linking destination.

- 2. A method of Claim 1, wherein the abstract link describes a nature of document elements of the first document of the link source and the second document of the linking destination according to a Horn clause predicate expression.
- 3. A method of Claim 1, wherein the abstract link derives document elements of the first document of the link source and the second document of the linking source documents satisfying the link establishing condition on a basis of a backtrack evaluation and a calculation to bind a variable based upon the document information retrieval.
- 4. A method of Claim 1, wherein the abstract link is described using an atom predicate.
- 5. A document link generating apparatus for linking a first document of a link source and a second document of a linking destination, comprising:

an abstract link extracting device configured to extract, from the first document of the link source, an abstract link describing a link establishing condition for determining a document link between the first document of the link source and the second document of the linking destination on a basis of retrieval of document information of the first document of the link source and the second document of the linking destination; and

a document link generating device configured to generate the document link based upon the extracted abstract link.

25

20

20

25

5

- 6. An apparatus of Claim 5, wherein the abstract link describes a nature of document elements of the first document of the link source and the second document of the linking destination according to a Horn clause predicate expression.
- 7. An apparatus of Claim 5, wherein the abstract link derives document elements of the first document of the link source and the second document of the linking destination satisfying the link establishing condition on a basis of a backtrack evaluation and a calculation to bind a variable based upon the document information retrieval.
- 8. An apparatus of Claim 5, wherein the abstract link is described using an atom predicate.
- 9. A document link generating apparatus for linking a first document of a link source and a second document of a linking destination, comprising:

means for extracting, from the first document of the link source, an abstract link describing a link establishing condition for determining a document link between the first document of the link source and the second document of the linking destination; and means for generating the document link based upon the extracted abstract link.

10. A computer program product, comprising:

a computer storage medium and a computer program code mechanism embedded in the computer storage medium for causing a computer to control linking a first document of a link source and a second document of a linking destination, the computer program code mechanism comprising:

a first computer code device configured to extract, from the first document of the link source, an abstract link describing a link establishing condition for determining a document link between the first document of the link source and the second document of the linking destination on a basis of retrieval of document information of the first document of the link source and the second document of the linking destination; and

a second computer code device configured to generate the document link based upon

5



the extracted abstract link.

- 11. A computer program product of Claim 10, wherein the abstract link describes a nature of documents elements of the first document of the link source and the second document of the linking destination according to a Horn clause predicate expression.
- 12. A computer program product of Claim 10, wherein the abstract link derives document elements of the first document of the link source and the second document of the linking destination satisfying the link establishing condition on a basis of a backtrack evaluation and a calculation to bind a variable based upon the document information retrieval.
- 13. A computer program product of Claim 10, wherein the abstract link is described using an atom predicate.